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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,987	10/19/2001	Yuuzo Kamiguchi	215231US2RD	7487

22850 7590 03/11/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

BLOUIN, MARK S

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental
Notice of Allowability**

Application No.

09/981,987

Examiner

Mark Blouin

Applicant(s)

KAMIGUCHI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Rule 312 amendment filed 1/31/05.
2. ☒ The allowed claim(s) is/are 1-5,7-12,14-23 and 26-44.
3. ☒ The drawings filed on 19 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Detailed Action

Response to Amendment

- The reply filed on January 31, 2005, under Rule 312 was applied to the following effect: Supplemental Notice of Allowance is issued allowing dependent Claims 5,7,9-12, and 15-18.

Reasons for Allowance

1. Claim 1 is generic and allowable. Accordingly, the restriction requirement as to the encompassed species is hereby withdrawn and claims 5,7,9-12, and 15-18, are no longer withdrawn from consideration since all of the claims to the other species depend from or otherwise include each of the limitations of an allowed generic claim.

In view of the above noted withdrawal of the restriction requirement as to the linked species, applicant(s) are advised that if any claim(s) depending from or including all the limitations of the allowable generic linking claim(s) be presented in a continuation or divisional application, such claims may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

2. Claims 1-5,7-12,14-23, and 26-44 (renumbered as 1-40) are allowed.
3. The following is an examiner's statement of reasons for allowance:

This application is for a magnetoresistance effect element.

- **Claim 1** specifies a magnetoresistance effect element, which requires:

"...a nitride, a fluoride, a carbide or a boride as a principal component and including holes of a metal phase of 2% to 30% and the mean diameter of each of the holes of the

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resistance regulating layer is in the range from 10% to 100% with respect to the total thickness of the magnetization free layer, the non-magnetic intermediate layer and the magnetization fixed layer.

These features, in combination with the other features of Claim 1, are not anticipated by, nor made obvious over, the prior art of record.

- **Claim 32** specifies a magnetoresistance effect element, which requires:

"...wherein the resistance regulating layer contains an oxide, a nitride, a fluoride, a carbide or a boride as a principal component and including holes, and the magnetoresistance effect element senses a relative angle between the magnetization direction of the magnetization fixed layer and the magnetization direction of the magnetization free layer by a change of current passing through the holes."

These features, in combination with the other features of Claim 32, are not anticipated by, nor made obvious over, the prior art of record.

- **Claim 33** specifies a magnetoresistance effect element, which requires:

"...the resistance regulating layer containing an oxide, a nitride, a fluoride, a carbide or a boride as a principal component and having a pin holes at a rate of hole area which is 50% or less, and two adjacent layers which contact the resistance regulating layer having an electric conduction substantially limited to conduction through the pin holes of the resistance regulating layer."

These features, in combination with the other features of Claim 33, are not anticipated by, nor made obvious over, the prior art of record.

- **Claim 39** specifies a magnetoresistance effect element, which requires:

"...the resistance regulating layer containing an oxide, a nitride, a fluoride, a carbide or a boride as a principal component and having a pin holes at a rate of hole area which is 50% or less, and at least 10 pin holes being formed in the resistance regulating area."

These features, in combination with the other features of Claim 39, are not anticipated by, nor made obvious over, the prior art of record.

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4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

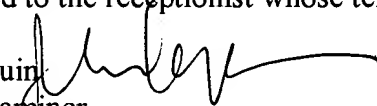
Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Blouin whose telephone number is (703) 305-5629. The examiner can normally be reached M-F, 6:00 am – 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful the examiner's supervisor, William Korzuch can be reached at (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314 for regular and After Final communications.

Any inquiry of general nature or relating to the status of application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Mark Blouin
Patent Examiner
Art Unit 2653
March 7, 2005




WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600